

REMARKS

This is a response to the Office Action mailed December 8, 2009, containing a FINAL REJECTION of the pending claims. A previously filed Information Disclosure Statement is revised and refilled listing additional patents identified in the original specification. A complete set of the pending claims in this application showing the status of each claim is included. Claims 1-38, 40 and 41 are cancelled and claims 60-74 are shown as withdrawn in view of the following remarks. Reconsideration of the final rejection of METHOD claims 39 and 42-59 and the status of claims 60-74 is respectfully requested.

REGARDING THE INFORMATION DISCLOSURE STATEMENT

A substitute Information Disclosure Statement is submitted to identify references that have been cited in a corresponding patent application pending in the European Patent Office and to add to the statement those Benesi patents that are listed and incorporated into the original specification. Previous comments have been supplied regarding each reference cited in a corresponding foreign application and as to their relationship to the presently claimed invention. The previous correspondence regarding those foreign references was presented to bring them to the attention of the US Examiner. The alternative statements in the CERTIFICATION STATEMENT cannot be made because of the "not more than three months" or the "no item -- was known to any individual designated -- more than three months prior to the filing of the --statement". The [X] marking in the previously filed IDS was in inadvertent mistake. The statement in the REMARKS is accurate in that the foreign references were cited in the corresponding EPO filing of the present application. The marking on the ISD was not intended to mislead the Examiner but was an effort to comply with the need for filing an ISD. The foreign references were called to the Examiner's attention early in the prosecution of this application.

The Benesi patents listed in the IDS are identified in the specification as to their

1 relationship to the present invention and were listed there to advise the Patent Office and
2 any reader of the present application that there were other patents showing some of the
3 previous developments in the filtration arts by the present inventors and to incorporate their
4 disclosures by reference. Entry of the new substitute IDS is requested.

5 CLAIM REJECTIONS – 35 USC § 102/103

6 Claims 39 and 42-59, the METHOD CLAIMS, and Claims 60-74, the APPARATUS CLAIMS,
7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C.
8 103(a) as obvious over Benesi '677 and under 35 U.S.C. 102(b) as anticipated by or, in the
9 alternative, under 35 U.S.C. 103(a) as obvious over Benesi '359; reconsideration of those
10 rejections is requested in view of the following remarks.

11 Previous amendments to the claims of this application have been presented to
12 provide clear distinction in the preambles for the apparatus over references that were then
13 applied by the Examiner as disclosing the claimed invention; the amendments were
14 intended to clearly show the distinction of the present invention employing the apparatus of
15 the pressure filter of the type being claimed. The amendments are to identify the type of
16 pressure filter apparatus previously disclosed in Benesi patents. Aside from the Benesi patents
17 cited by the Examiner, none of the other patents cited by the Examiner show an apparatus
18 like the Benesi patents and none disclose the METHOD claimed in claims 39 and dependent
19 claims 42-59 in whatever form of apparatus they disclose. The pressure filter apparatus of
20 the Benesi patents is capable of being operated in accord with the present METHOD claims;
21 however, none of the prior Benesi patents suggest or disclose the method now being
22 claimed. It is the discovery by the present inventors that the pressure filter apparatus of the
23 Benesi form can be operated in the recited METHOD steps to accomplish an advance in the
24 filtration of slurries to produce a dryer filter cake without damage to the material in the cake.
25 Prior to the time of filing of the present application, it was unknown that properly controlling
26 the pressure and temperature in the pressurized filtration chamber could accomplish the

1 advance in dryness in a produced filter cake by using properly pressurized and temperature
2 controlled DRY HOT GASES to further extract residual liquids remaining in an initially formed
3 filter cake without damage to the solids within the treated cake.

4 While the prior Benesi patents illustrate structure that can be adapted to perform the
5 presently claimed METHOD there is no disclosure in those patents of controlling the
6 temperature and pressure within the filtration chamber to permit the use of HOT DRY GASSES
7 that are supplied at temperature and pressure in conformance with the controlled
8 temperature and pressure within the filtration chamber to maintain the HOT DRY GASES in
9 their DRY state while heating and forcing residual fluids out of an initially formed filter cake to
10 create a DRYER filter cake without damage to the solids remaining behind in the chamber.

11 A significant and some what unexpected advance in the drying of solids separated from the
12 slurry has been accomplished with the present METHOD and, particularly in the case of some
13 solids that could be damaged if subjected to WET HOT GAS extraction, the DRY HOT GASSES
14 can avoid such damage by remaining DRY during the continuation of the filtration process.
15 It is submitted that there is no anticipation of the present methods in the earlier Benesi
16 patents and there is no grounds for asserting that the presently claimed methods would be
17 obvious from those earlier Benesi patents.

18 The present specification includes the disclosure of the method steps being claimed;
19 see pages 8-18. In particular, pages 14 and 15 where the use of pressure control and hot
20 gasses is described. Note particularly page 14, lines 33 and on to page 15 where steam
21 passing through the filter cake can remain DRY while transferring useful heat to the filter
22 cake. Page 14 and 15 refer to the vapor phase diagram illustrating the transition of vapor to
23 dry steam is plotted in respect to temperature and pressure.

24 The use of hot gas as a slurry treatment is described as showing an improved
25 efficiency in the separation processes described. At page 17 there is a description of the
26 difference between wet steam and dry steam as that relates to the operation of a pressure

1 filter apparatus. Because the filter of the present invention can be controlled in pressure and
2 temperature it is possible to keep the HOT DRY GAS and steam in the desired "dry" quality
3 while performing the further removal of liquids from a filter cake.

4 The proposed amendments to the claims are fully supported in the specification and
5 are added to provide a clear indication of the distinction between prior Benesi patents and
6 the other art cited by the Examiner. The amendments proposed to claim 39 are intended to
7 provide a clear distinction between mere hot fluid extractions and the DRY HOT GAS FLUID of
8 the present invention. The amendments proposed for subparagraphs b) and c) of claim 39
9 are intended to show clear distinction for the use of a pressurized and temperature
10 controlled filtration chamber to permit the use of DRY HOT GAS FLUID that can be
11 maintained in its DRY STATE while performing the completion of a filtration process as
12 claimed. All of the proposed amendments are supported on pages 10 through 15 of the
13 specification and no new matter has been added by the amendments to the claim.

14 It is emphasized that while the apparatus shown in the Benesi patents '667 and '359
15 could be modified to perform the presently claimed invention, there is no suggestion in those
16 patents that the present METHOD of controlling the temperature and pressure within a
17 filtration chamber so that DRY HOT GAS FLUIDS could be used in a filtration process while
18 maintaining the DRY HOT GAS FLUID in its DRY state while heating and forcing residual fluids
19 out of an initially formed filter cake. It is the order of the METHOD steps that is the advance
20 claimed in the present invention.

21 It is therefore submitted that the rejection of the method claims under 35 U.S.C.
22 103(a) as obvious over Benesi '667 or '359 is not well founded. Removal of that rejection is
23 respectfully requested. There is no suggestion in either of the Benesi patents that either
24 should be modified in operation to perform the presently claimed invention.

25 With respect to the rejection of the claims under 35 U.S.C. 102(b) under Benesi '677
26 and '359, it is respectfully submitted that rejection of the claims as anticipated by the Benesi

1 patents is not well founded. To begin with, the MPEP clearly states at page 700-23 in
2 paragraph V in "Distinction between 35 U. S.C. 102 and 103" – mid paragraph- "for
3 anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed
4 invention either explicitly or impliedly. Any feature not directly taught must be inherently
5 present," It is respectfully submitted that the rejection of the present claims as anticipated
6 by either or both of the Benesi patents is not well founded because those Benesi patents do
7 not suggest that a pressure filter chamber should be maintained at a predetermined
8 pressure and temperature so that DRY HOT GAS FLUID maintained at a predetermined
9 pressure and temperature can be used to further force fluids from an initially formed filter
10 cake by maintaining the DRY HOT GAS FLUID in its DRY state during the further filtering. The
11 use and maintenance of the DRY HOT GAS FLUID "DRY" is neither explicitly or impliedly or
12 inherently suggest in any additional continuing filtration step in any of the Benesi patents.
13 Reconsideration of this rejection of the amended claims under 35 U.S.C. 102(b) is respectfully
14 requested.

15 The Examiner has called attention to the two patents of Koch and the patent of Bott.
16 None of those patents are directed to a pressure filter apparatus as defined in the present
17 invention. Further, while those patents disclose the use and benefits of superheated steam in
18 the filtration processes they describe, none of them suggest or disclose the need and or
19 ability to maintain such steam in a DRY state during their processes and, in fact, the patents
20 describe the condensation of the steam (changing from dry to wet) in the description of their
21 inventions. It is the ability of the present apparatus and the method as claimed to keep the
22 DRY HOT GAS FLUID in its dry state so as to perform the improved filtration process and to
23 produce the resulting substantially dry slurry solids filter cake that is being claimed.

24 STATUS OF CLAIMS 60-74

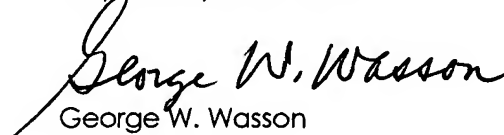
25 Claims 60-74 (the APPARATUS claims) have been designated as WITHDRAWN with this
26 RESPONSE and the METHOD claims 39, 40-59 are submitted for reconsideration. On an

1 indication that the METHOD claims are allowable, the APPARATUS claims will be cancelled,
2 without prejudice, so as to be available for a continued filing as a division if that becomes
3 desirable. At this time, the Examiner is not expected to further examine the apparatus
4 claims. If the designation as WITHDRAWN is not appropriate, the Examiner is requested to so
5 advise the applicant's representative to provide a proper designation of the claims.

6 If a discussion of the amendments to the method claims and the content of these
7 remarks could be helpful in the continued prosecution of this application, the Examiner is
8 invited to contact the applicant's representative at the telephone, fax or email shown
9 below.

10 Removal of the FINAL REJECTION and allowance of the method claims 39, 42 - 59 is
11 respectfully requested.

12 Respectfully submitted,

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